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Markets

Henderson, David R.

CRC Press

Henderson, David R. Markets. The Technology Management Handbook, CRC Press, 1999
<http://hdl.handle.net/10945/61516>

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Markets

David R. Henderson, Hoover Institution and Naval Postgraduate School (written for Richard C. Dorf, editor, *The Technology Management Handbook*, CRC Press, 1999)

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In his famous book, *The Wealth of Nations*, published in 1776, Adam Smith explained to his countrymen why some economies grew and others stagnated. Thus the book's complete title: *An Inquiry into the Nature and the Causes of the Wealth of Nations*. Many of Smith's keen insights have weathered the test of time and evidence, and thus are still relevant today. Particularly relevant, to the world and to this article, are Smith's insights about markets. Economists since Smith, particularly Friedrich Hayek and Ludwig von Mises, have added their own insights about the power of markets in creating wealth and opportunity. In this article, I will not always identify the particular economist who first had a given insight. Rather, my focus in this article is on the insights themselves no matter what their origin.

Exchange Makes Markets

"Market" is a summary term for all the exchanges that take place in a society. To qualify as an exchange, an action must have two characteristics. First, each party gives up something in return for what the other party gives up, and second, the switching of items must be voluntary. So, for example, if I sell a copy of my encyclopedia to you for \$50, that is an exchange. You and I switch the \$50 and the book, and we do so voluntarily. On the other hand, if I grab \$50 out of your wallet and leave the book on your doorstep, that is not an exchange because you did not consent.

Because every exchange is part of the market, the market encompasses a wide range of exchanges, from the simple to the highly complex. The \$50-for-book exchange is a simple one. A complicated exchange would be the "stripping" from a bond of its stream of interest payments. Stripping the bond divides one asset into two: the stream of interest payments and the principal. The sale of either asset is a complex exchange. An even more complex exchange, in which a large

fraction of U.S. society has engaged at some point, is the purchase or sale of a house. The sale agreement for a house often specifies what must be repaired or replaced before the sale is complete, and many such contracts also reference covenants, conditions, and restrictions that, by a previous agreement, restrict the use of the property.

Gains from Exchange

One of the most powerful insights from economics is that both parties benefit from an exchange. Trade is never an exchange of equal value for equal value. If what I received in exchange equaled the value of what I gave up, I would not bother making the exchange. To make an exchange, I must receive something that I value more than what I give up.

The modern jargon often used to express this insight is that trade is a positive-sum game. Unfortunately, this statement is deficient. That trade is positive-sum is necessary but not sufficient for it to benefit both sides. If one party to trade benefited while the other lost, but the first party gained more than the other party lost, the transaction would still be positive-sum. But trade benefits both sides, meaning that there is no loser. The statement that both sides gain from exchange is thus stronger than the positive-sum formulation.

When economists say that both parties to an exchange benefit, they are judging benefit by the values of those engaged in the exchange, not by their own values. So, for example, someone who buys and smokes a cigarette gains from the exchange, judged by his values, even though I might think that he is unwise to buy or smoke cigarettes. Economists are also assuming, of course, that one of the traders did not defraud the other. When fraud is present, the conclusion that both sides benefit is no longer certain.

The simple insight that people gain from exchange has far-reaching and often radical implications. It means, for example, that actual cases of exploitation are far less common than is ordinarily believed. Take an extreme hypothetical in which Joe is out in the desert, perishing for lack of water, when he comes across Rita's Friendly Oasis. He knows that if he drinks a quart of water, he will survive and be able to use his American Express card to get on the next flight home. If he gets no water, on the other hand, he will die. Rita's cost of pulling up an extra

quart of water is, let us say, 10 cents. Rita offers to sell Joe the quart of water--for \$50,000. We can predict that if Joe has the income and wealth of a typical American, he will commit to pay the \$50,000, and will take out a loan, if necessary, to do so. Does Joe gain from this exchange? Yes. Does Rita gain? Yes. So the insight that both sides gain from exchange stands up even under extreme circumstances. Is Rita exploiting Joe? If by that term is meant that Rita is taking advantage of Joe's vulnerability by charging a high price, then Rita is exploiting Joe. But if exploitation means that one side sets the exchange rate so that the other side is worse off, then Rita is not exploiting Joe. Both Joe and Rita are better off. The statement that both sides gain from exchange said nothing about the relative gains. Even if one side gains a lot and the other a little, both sides gain. In fact, Rita's and Joe's split of the gains from exchange is unequal, but not in the way that one might think: Joe, by preserving his life, gains far more than Rita, whose gain is only \$50,000 minus 10 cents.

The desert example, while useful for testing the limits of the gains-from-exchange idea, is fictitious. But in the real world every day there are cases that come close. Take "sweatshops" for example. In many developing countries, people close to starvation work for very low wages, sometimes for wealthy multinational companies. Is this sweatshop work an example of gains from trade? Actually, yes. The multinational company, of course, gains by paying low wages in return for work. But the workers gain also. Commentators in developed countries, noting the long hours, low pay, and absence of amenities on the job, have assumed that the workers in those jobs are losing in the exchange. In fact, closer investigation has found that factory jobs for low pay by U.S. standards are among the higher-paying and most desirable jobs in those countries. Workers who get factory jobs often move to those jobs from farms, where they were used to working even longer hours, at lower pay, and in more miserable conditions, than in their new factory jobs. One apparel worker at a Honduras "sweat shop" told the New York Times, "This is an enormous advance and I give thanks to the maquila [factory] for it. My monthly income is seven times what I made in the countryside, and I've gained 30 pounds since I started working here." Whenever he returns to his home town, this worker explained, his friends and relatives want him to help them find jobs. Another wealthier Honduran noted that the good factory jobs were making it hard to find a nanny or a maid. "Sweat shops," in short, are a path from poverty to greater wealth.

Many commentators in the richer countries have seemed unable to detach themselves from their own circumstances and mentally put themselves in the situation of workers in poor countries. In denouncing jobs in poor countries in which workers earn less than a dollar an hour, commentators seem to be comparing such jobs to their own economic situations, which are clearly better. But this is simply an irrelevant alternative to workers in sweat shops. These workers don't have the option of moving to the United States and earning the \$30,000-to-\$250,000-a-year jobs that the commentators have, or even of earning the U.S. minimum wage. The commentators' failure to get outside their own context and understand gains from exchange has had tragic consequences. Oxfam, the British charity, reported that when factory owners in Bangladesh were pressured to fire child laborers, thousands of the children became prostitutes or starved.

That people gain from exchange also explains why the "drug war" is so difficult for the government to fight. Neither a drug buyer nor a drug seller is likely to report to police the crime committed by the other party to the transaction, because both the buyer and seller of illegal drugs see themselves as gaining from the exchange. Enforcing drug laws, therefore, is very different from enforcing laws against murder, rape, or burglary. In those cases, there is clearly a victim, or a victim's friend or relative, who objects to the crime and therefore has an incentive to report the crime to the police. But when illegal drugs are bought or sold, there is, from the viewpoint of the participants, no victim. That is why, to enforce drug laws, the government has put in place an intrusive surveillance system at airports, has required that people paying \$10,000 or more in cash fill out a special federal form that flags their case to federal law enforcement officials, has seized property that police suspect has been used or earned in the sale of drugs, and has carved out an exemption to the U.S. Constitution's prohibition on illegal search. The simple principle of gains from exchange implies that a government serious about preventing exchange would have to take extreme measures to do so, whether it is trying to restrict trade in cocaine or Coca-Cola.

Markets Facilitate the Division of Labor--and Knowledge

No one knows how to make a pencil. This statement is literally true. No one single person has all the know-how to create all the elements that go into a pencil

and to put those elements together. In his justly famous essay, "I, Pencil," Leonard Read told the dramatic story of how an international division of labor has created the simple pencil. The wood of the famed pencil was from northern California, the graphite was mined in Sri Lanka (then Ceylon), and the eraser was made by reacting rape seed oil from the Dutch East Indies with sulfur chloride. Each of these items, in turn, was produced by a complex division of labor and no one person in the world understands all these complex production processes.

Markets facilitate the division of labor, as Adam Smith understood. The person trying to decide whether to become a butcher, baker, or brewer makes some estimate of his own productivity in each occupation, checks out the prices he can charge for meat, bread, and beer, and the amounts he must pay for materials and other factors of production, and then uses this information to decide which occupation to enter. Actually, the person trying to decide among occupations need not know much about prices of inputs or outputs in various industries: all he or she need so is check the wages that are offered in each. That simplifying step, itself, is made possible by the division of labor: some people in society have chosen to specialize as employers, making the employee's decision even easier. The division of labor allows each person to specialize in doing what he or she does best. The division of labor, noted Adam Smith, is limited by the extent of the market. The larger the market, the more specialized people can become. This specialization enhances productivity.

Markets allow people to co-ordinate their plans. If, for example, there is a sudden increase in the number of people who want to become butchers, the wages that a given butcher can earn will fall, pushing out those butchers who, at the lower wage they can now earn, do not wish to be butchers. Although recent news stories on layoffs in the New York Times and elsewhere have lamented this process, it is a necessary and even healthy aspect of markets. Markets let workers choose whether to accept lower wages or to find other work. The alternative to markets is government coercion. In the Soviet Union and China, where markets were ruthlessly suppressed for decades, workers were not free to choose. They were, in essence, long-term slaves.

Of course, people do not have to specialize in the occupation that pays them the highest financial returns. People can and do make tradeoffs between money and other aspects of jobs, including the pleasure they get from particular jobs, the hours they work, the people they work with, and the places they work. The division of labor helps them make such choices.

As Nobel laureate Friedrich Hayek emphasized in much of his writing, one of the underappreciated and least understood aspects of the market, even among economists, is its facilitation of the division of knowledge. In elaborating the important role of information in economies, Hayek, following his mentor, Ludwig von Mises, put the final intellectual nail in the coffin of socialism. Hayek showed that the standard formulation of the problem of socialist planning assumed the answer before the problem was solved. Hayek conceded socialist economist Oskar Lange's point that if the central planner had all the relevant information about the economy, he could plan the economy efficiently. But the problem in any complex economy, wrote Hayek, is that "the relevant knowledge" does not exist in any one mind or small group of minds. Rather it exists in the millions of minds of the millions of people who participate in the economy. Therefore, no central planner, no matter how brilliant and informed, could have the information that a government would need to run an economy efficiently. Well-known socialist economist Robert Heilbroner admits, about 50 years after Ludwig von Mises and Friedrich Hayek made the point about information, that von Mises and Hayek were right. "Socialism," writes Heilbroner, "has been the tragic failure of the twentieth century." The only institution that can solve the problem of knowledge, that is, the problem of how to let people's knowledge be used, is the market. The market leaves people free to make their own decisions, and to bet their own resources on those decisions. Somerset Maugham's story, "The Verger," illustrates beautifully how markets allow people to use their information. In that story, the verger of a church quits his job rather than learn how to read and write. The day he decides to quit, he wanders around London, pondering his predicament and his future. He starts longing for a cigarette and notices that he can't find a tobacco store. A fellow could make a lot of money setting up a tobacco and candy store in this area, he tells himself. That is what he proceeds to do. Later, he uses the walking-around method to choose where to build additional stores. The verger has information that is specific to him and he acts on it. No government planner, even in a society

whose government was not hostile to smoking, would have had the knowledge about where to place a tobacco store. Only in a free market could someone be free to use that information and to bet his own capital on it.

Although “The Verger” is fiction, there are literally millions of examples of people in the real world betting their capital on their specific information. The business magazine, *Forbes*, in fact, regularly carries articles about someone who had an idea, invested in the idea, and made a few million dollars on it. Some investors, for example, had noticed the increase in the number of working wives and speculated that these wives would want for dinner something other than McDonald’s fare or other fast foods. The fast-food chains were not catering to this segment, nor were the supermarkets. Thus began Boston Market, whose specialty is “home-meal replacement.” Boston Market is a chain that sells wholesome, home-style meals with plenty of home-style side dishes. The typical meal of chicken feeds five and sells, in 1997, for about \$18. Another *Forbes* story tells of Gregory Brophy who, noticing that many large firms were outsourcing some of their more mundane tasks, decided to buy a 2,000-pound, industrial-grade paper-shredding machine. His new idea was to collect and shred each customer’s unwanted paper on the customer’s premises. Until Brophy had come along with his business, no one had done that. In 1996, Shred-It, Brophy’s company, earned about \$800,000 after taxes.

Markets Happen

Markets are one of the most natural and spontaneous things in the human world. Start with a few people and no regulations preventing exchange, and, unless one group decides to attack the other, they will likely end up trading. In a fascinating article published just after the end of World War II, R.A. Radford described the intricacies of the markets that developed among British and American occupants of German prisoner-of-war camps. The currency, which evolved naturally without anyone dictating it, was cigarettes. Just as in larger markets outside the prison camps, the prices of goods fluctuated according to their relative supplies. Indeed, the development of a market in a Japanese P.O.W. camp was a major part of the plot of James Clavell’s novel, *King Rat*. Corporal King, an American in a prison camp full of Brits and Australians, was an entrepreneur who made money by arbitraging against price differentials within the camp. King also began a division of labor, hiring people, often superior to him in rank, to do various

forms of labor for him. Although King's actions generated an enormous amount of hatred and envy, his effect was to enhance not only his own well-being, but also the well-being of everyone who traded with him. Clavell was a careful enough novelist to bring out this fact, even though the reader senses at times that Clavell was ambivalent about King Rat's morality.

Markets and Motives

Self-interest is the main human characteristic that causes people to enter markets whether as buyer or seller. Adam Smith put it best when he wrote, "It is not from the benevolence of the butcher, the brewer, or the baker, that we can expect our dinner, but from their regard to their own interest." Far from lamenting that fact, Smith celebrated it. Life would be tough, argued Smith, if our "affections, which, by the very nature of our being, ought frequently to influence our conduct, could upon no occasion appear virtuous, or deserve esteem and commendation from anybody." Translation: how can you attack self-love when it is an inherent part of being human and, indeed, a tool for human survival? Samuel Johnson, the author of the first dictionary, put it more succinctly when he wrote, "Man is never so innocently employed as when he is honestly making money."

Is there an inherent contradiction between pursuing one's interest in markets and caring about others? Not at all. Indeed, the connection is the opposite. Throughout history, the development of free markets has led to increases in wealth and income at all levels of society. This is what happened in the United States over the last 200 years, in Hong Kong in the last 40 years, and in many other parts of the developing world. This increase in wealth has led to a tremendous outpouring of generosity. Many of the major charities in the United States, such as the Red Cross, began during the 19th century, when government intervention was almost non-existent and wealth was increasing. In economists' jargon, charity is a normal good; as our wealth increases, we give more to charity. Moreover, consider the alternative. The only way to ban markets is to beat them down with force. And since markets are abstractions, the force is used against people. So the alternative to a market-oriented society in which everyone is required to respect everyone else's rights is a society in which those in power use force on whomever they can get away with using it on. Thus the irony to the charge that a free-market society follows the law of the jungle. The reality is that a society based on force--the antithesis of the market--is the real jungle.

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